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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/928,140	08/10/2001	Valentin Oprescu-Surcobe	CE09004R	6482
22917	7590	08/19/2005	EXAMINER	
MOTOROLA, INC. 1303 EAST ALGONQUIN ROAD IL01/3RD SCHAUMBURG, IL 60196			ABELSON, RONALD B	
			ART UNIT	PAPER NUMBER
			2666	

DATE MAILED: 08/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/928,140

Applicant(s)

OPRESCU-SURCOBE ET AL.

Examiner

Ronald Abelson

Art Unit

2666

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 August 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 5, 6, 8, 9, 12-14 and 17-20 is/are rejected.
- 7) ☒ Claim(s) 2-4, 7, 10, 11, 15, 16, 21 and 22 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 1/21/03 8/10/01.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

***Claim Objections***

1. Claim 2 is objected to because of the following informalities: On line 3, the term "types of message" makes the claim indefinite. On lines 5 and 9, the term "type of message" makes the claim indefinite. Appropriate correction is required.

Claim 4 is objected to because of the following informalities: On line 5, the term "message type" makes the claim indefinite. Appropriate correction is required.

Claim 10 is objected to because of the following informalities: On line 3, the term "message types" makes the claim indefinite. Appropriate correction is required.

Claim 11 is objected to because of the following informalities: On line 5, the term "message types" makes the claim indefinite. Appropriate correction is required.

Claim 15 is objected to because of the following informalities: On line 3, the term "message types" makes the claim indefinite. On lines 7 and 9, the term "type of message" makes the claim indefinite. Appropriate correction is required.

Art Unit: 2666

Claim 18 is objected to because of the following informalities: On line 8, the phrase "and arranged to transmit in the paging slot messages of the groups indicated" is ambiguous. The examiner understands this phrase to be "and the base site is arranged to transmit in the paging slot messages of the groups indicated". Appropriate correction is required.

Claim 21 is objected to because of the following informalities: On line 3, the term "message types" makes the claim indefinite. Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Art Unit: 2666

3. Claims 1, 8, 9, 14, 18, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosen (US 20040171400) further in view of Ericsson (US 6,223,047).

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

In this office action the examiner corresponds the applicant's paging slot with the slots between the current paging slot and the next appropriate paging slot of Rosen [0104]. Note, the applicant states "This group of frames, referred to as its 'paging slot'" (pg. 1: lines 26-27).

Art Unit: 2666

Regarding claims 1 and 14, Rosen teaches a method for a communication unit to extend battery life ([0101], conserve battery life, mobiles).

Rosen teaches exiting a sleep mode in which power is conserved to begin monitoring a paging slot ([0104], mobile may wake up every predetermined number of slots).

Rosen teaches receiving in the paging slot an indication if a message will be transmitted by a communication infrastructure in the paging slot ([0104], one-bit indicator).

Rosen teaches determining if a message will be received by the communication unit during the paging slot ([0104], If the extracted bit is not set, If the extracted bit is set).

Rosen teaches when no message will be received, entering a sleep mode to conserve power ([0104], If the extracted bit is not set, mobile sleeps).

Regarding claims 14, in addition to the limitations previously listed, a receiver, and a processor coupled to the receiver (Rosen: fig. 1 box 102).

Rosen is silent on receiving in the paging slot / cycle an indication of what groups / types of messages will be transmitted, determining whether any of the groups indicated

Art Unit: 2666

need to be received, and when the groups of messages do not be received, entering a sleep mode.

Ericcson teaches receiving in the paging slot / cycle an indication of what groups / types of messages are transmitted (testing the message type, col. 8 lines 60-65), determining whether any of the groups indicated need to be received during the paging slot (two bits are used to distinguish, testing the message type, col. 8 lines 57-65), and when the groups of messages do not be received, entering a sleep mode (after testing the message type, the mobile phone either ignores the rest of the cycle by powering down till the next syncs are due, col. 8 lines 60-65).

Therefore it would have been obvious to one of ordinary skill in the art, to modify the system of Rosen by transmitting in the beginning of the paging slot a multiple bit indicator to indicate which groups/types of messages will be received within the paging slot. This modification can be performed according to the teachings of Ericcson. The suggestion to modify is by knowing the message type, a determination can be made for how long to power down the receiver (Ericcson: col. 8 lines 47-49). This would benefit the system by allowing the mobile to operate in the sleep mode for a greater time period.

Art Unit: 2666

Regarding claims 9 and 18, Rosen teaches a communication infrastructure to facilitate communication units in extending their battery life (fig. 1 box 116, [0101], conserve battery life, mobiles).

Rosen teaches determining if a message will be transmitted during a paging slot (fig. 1 box 116, [0104], one-bit indicator). Note, after determining if a message will be sent, the transmitter sends the one-bit indicator on the forward quick paging channel 'F-QPCH').

Rosen teaches transmitting in the paging slot (fig. 1 box 116) an indication if a message will be transmitted during the paging slot to enable receiving communication units to enter a sleep mode and conserve power if no message will be received ([0104], one-bit indicator, if the extracted bit is not set mobile sleeps).

Rosen teaches transmitting in the paging slot the message ([0104], If the extracted bit is set, a page may be pending, next appropriate paging channel slot).

Regarding claim 18, in addition to the limitations previously listed, a controller and a base site coupled to the controller (Rosen: fig. 1 box 122, 116).

Art Unit: 2666

Rosen is silent determining what groups of messages will transmitted during the paging slot / cycle; transmitting in the paging slot an indication of what groups of messages are transmitted during the paging slot / cycle to enable receiving communications units to conserve power when the groups of messages indicated do not need to be received; and transmitting in the paging slot / cycle the messages of the groups indicated.

Ericcson teaches determining what groups / types of messages will be transmitted during the paging slot / cycle (two bits of the message are used to distinguish, col. 8 lines 57-60: note first Ericcson determined what groups of messages will be transmitted, then he transmitted the message type); transmitting in the paging slot / cycle an indication of what groups / types of messages are transmitted during the paging slot / cycle (two bits of the message are used to distinguish, col. 8 lines 57-60) to enable receiving communications units to conserve power when the groups of messages indicated do not need to be received (after testing the message type, the mobile phone either ignores the rest of the cycle by powering down till the next syncs are due, col. 8 lines 60-65) and transmitting in the paging slot / cycle the messages of the groups indicated (quits the standby

Art Unit: 2666

mode, col. 8 lines 60-65). Note, the mobile quits the standby mode to receive the transmitted message.

Therefore it would have been obvious to one of ordinary skill in the art, to modify the system of Rosen by transmitting in the beginning of the paging slot a multiple bit indicator to indicate which groups/types of messages will be received within the paging slot. This modification can be performed according to the teachings of Ericcson. The suggestion to modify is by knowing the message type, a determination can be made for how long to power down the receiver (Ericcson: col. 8 lines 47-49). This would benefit the system by allowing the mobile to operate in the sleep mode for a greater time period.

Regarding claim 8, the types of messages comprise at least one message selected from the group consisting of broadcast message type, system overhead type (nonslotted-individually-addressed-or-multicast-message, and slotted-individually-addressed-or-multicast-message (Rosen: page, [0104])). The examiner corresponds the applicant's slotted-individually-addressed-or-multicast-message with the page of Rosen.

Art Unit: 2666

Regarding claim 19, the communication infrastructure is CDMA (Rosen: [0025]).

5. Claims 5, 12, 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Rosen and Ericsson as applied to claims 1, 9, 14 respectively above, and further in view of Diachina (US 5,655,215).

Although the combination of Rosen and Ericsson teaches an indication of what groups of messages will be transmitted during the paging slot, the combination is silent on the indication of which groups of communication units will be addressed by messages transmitted during the paging slot.

Diachina teaches a method for indicating which groups of communication units will be addressed (group identity field, col. 6 lines 21-27).

Therefore it would have been obvious to one of ordinary skill in the art, to modify the system of the combination of Rosen and Ericsson by appending to the multiple bit indicator a group identity field. This modification can be performed in software as shown by Diachina. The suggestion to modify is a designated group of mobiles may be paged with one page (Diachina: col. 6 lines 21-27).

Art Unit: 2666

6. Claims 6 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Rosen, Ericsson and Diachina as applied to claims 5 and 12 respectively above, and further in view of Newton.

Although the combination teaches the indication of which groups of communication units will be address is a sequence of bits (Diachina: group identity field, col. 6 lines 21-27), the combination is silent on bit compression.

Newton teaches bit compression (pg. 181).

Therefore it would have been obvious to one of ordinary skill in the art, to modify the system of combination Rosen, Ericsson and Diachina by performing bit compression on the message indicator. This modification can be performed according to well-known bit compression algorithms. The suggestion to modify is compression reduces the bandwidth or number of bits needed to encode (Newton: pg. 181). This will benefit the system since compression saves time or capacity (Newton: pg. 181).

7. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Rosen and Ericsson as applied to claim 18 above, and further in view of Grille (US).

In addition to the limitations previously listed, the combination teaches the indication of what groups of messages

Art Unit: 2666

will be transmitted is transmitted on a paging channel 'PCH'  
(Rosen: [0104] forward quick paging channel F-QPCH).

The combination is silent on the message is encoded,  
interleaved and CRC protected.

Grille teaches interleaving in a CDMA environment, the  
message being encoded, interleaved and CRC protected (fig. 2 box  
214, [0026]).

Therefore it would have been obvious to one of ordinary  
skill in the art, to modify the system of the combination of  
Rosen and Ericcson by using the encoder of Grille for encoding  
messages. The suggestion to modify is the encoder performs a  
number of functions, depending on the particular CDMA system or  
standard (Grille: [0026]).

#### ***Allowable Subject Matter***

8. Claims 2-4, 7, 10, 11, 15, 16, and 21-22 objected to as  
being dependent upon a rejected base claim, but would be  
allowable if rewritten in independent form including all of the  
limitations of the base claim and any intervening claims.

**Conclusion**

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronald Abelson whose telephone number is (571) 272-3165. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*RA*  
Ronald Abelson  
Examiner  
Art Unit 2666

*Ronald Abelson*